ABSTRACT

The present invention provides methods and compositions for treating a
subterranean formation penetrated by a well. The method comprising the steps of:
(a) forming a treatment fluid, and (b) introducing the treatment fluid into the well and
into contact with the formation. According to one aspect, the treatment fluid
comprises: (1) water; (2) a water-soluble polysaccharide capable of increasing the
viscosity of the water and present in a sufficient concentration to increase the
viscosity of the water or a water-soluble polysaccharide and a crosslinking agent for
the water-soluble polysaccharide, which are present in a sufficient concentration to
effect crosslinking of the of the polysaccharide and increase the viscosity of the
water; (3) a breaker comprising at least one member selected from the group
consisting of a source of chlorite ions and a source of hypochlorite ions, wherein the
breaker is present in a sufficient concentration to break the treatment fluid after
introduction of the fluid into the subterranean formation; and (4) a breaker moderator
comprising at least one member selected from the group consisting of a source of
magnesium ions and a source of calcium ions, wherein the breaker moderator is
present in a sufficient concentration to control the break rate of the fluid.